

REMARKS

The application has been reviewed in light of the Office Action dated May 14, 2003. Claims 1-5, 12, 31-35, 41, 56-58 and 60 are pending in this application. By the present Amendment, claims 1-5, 12, 31-35, 41, 56, 58 and 60 have been amended to correct formal matters. It is submitted that no new matter has been added and no new issues have been raised by the present Amendment.

Applicant wishes to bring to the Examiner's attention that it appears that a copy of the reference "GDSA an X.500 Directory Implementation Supporting Heterogeneous Databases" by C.M.R. Leung (Leung) presently on file, erroneously includes copies of the drawings from Applicant's corresponding co-pending PCT application. The Leung reference should include only pages 85-90. An Information Disclosure Statement correcting the error and a new copy of the Leung reference are being filed concurrently herewith.

Claims 1-5, 12, 31-35, 41, 56-58 and 60 were rejected under 35 U.S.C. §102(b) as allegedly anticipated by "An Object-Oriented Approach to Directory Systems" by C.M.R. Leung, IEEE Region 10 Conference on Computer and Communications Systems, September 1990, Hong Kong, pages 736-740 (Leung). Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits that amended independent claims 1, 12, 31, 41 and 56 are patentable over the cited art, for at least the following reasons.

Independent claim 1 relates to a method of storing data in a database, comprising, obtaining both a protocol encoded raw form of a data to be stored and a syntax normalized form of the data, and storing concurrently in at least two tables both the syntax normalized form and the protocol encoded raw form of the data.

Leung, as understood by the Applicant, relates to an X.500 directory implementation supporting heterogeneous databases and describes a DIT table and a single ENTRY table (See

Leung, page 738, Figure 6 and page 739, column 1, lines 1-14) holding detailed information about each directory object. The DIT table is described as a table holding information of the structure of the DIT with each record containing the system identifier of an object, that of its parent, and a coded RDN. The ENTRY table is the single table in Leung described as the table containing information about each directory object, with each record holding the system identifier of an object, and an attribute type of the object in normalized and raw forms.

However, as understood by Applicant, Leung does not teach or suggest a method of storing data in a database comprising obtaining both a protocol encoded raw form of a data to be stored and a syntax-normalized form of the data, and storing concurrently in at least two tables both the syntax-normalized form and the protocol encoded raw form of the data.

The Office Action alleges that the storage of a normalized form and a raw form of the data is the equivalent of storing both the syntax-normalized form and the protocol encoded raw form as recited in the claims. However, the meaning of “normal form” and “raw value” as used in the Leung reference is unclear because of the limited detail provided by the reference. According to embodiments of the present disclosure, the normalization process removes syntax variations, thereby providing a highly searchable form of the data. Of course, the claims are not limited to the disclosed embodiments. In Leung, it is unclear what “normal form” refers to in Leung.

When considering the term “protocol encoded raw form”, embodiments of the present disclosure refer to the X.500 or LDAP protocol encoded form of the data that is transmitted via an X.500 service. The meaning for this term is clear from the text of the specification and its use, particularly in Table 5b at page 51. Of course, the claims are not limited to the disclosed embodiments. Because of the limited detail provided by the Leung reference, contrary to the allegations in the Office Action, it cannot be said that “raw form” in Leung is equivalent to the

"protocol encoded raw form" as recited in independent claim 1. Furthermore, one of ordinary skill in the art would not be able to conclude that the two forms are equivalent because of the inadequate description in Leung and the admittedly incomplete state of the Leung project. Thus, Applicant submits that Leung is not relevant or enabling art and is wholly inadequate for the purposes of anticipation under 35 U.S.C. §102(b).

Accordingly, Applicant finds no teaching or suggestion of a method of storing data in a database comprising obtaining both a protocol encoded raw form of a data to be stored and a syntax-normalized form of the data, and storing concurrently in at least two tables both the syntax-normalized form and the protocol encoded raw form of the data, as recited in independent claim 1. Independent claims 31 and 57 and dependent claims 2-5 and 58 are believed to be patentable for at least similar reasons.

With regard to the rejection of independent claims 12, 41 and 56 the Office Action alleges that Leung anticipates all of the elements recited in the subject claims. Applicant respectfully disagrees. Leung, as understood by the Applicant, describes only one table, an ENTRY table, containing normalized and raw forms of the data. Leung is not understood to teach or suggest a method, apparatus and system, respectively, where data is stored in at least two tables. Accordingly, it is respectfully submitted that independent claims 12, 41 and 56 are patentable over the cited art.

The Office is hereby authorized to charge any additional fees which may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition, and the Commissioner is authorized to charge the requisite fees to our deposit account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Entry of this amendment and allowance of this application are respectfully requested.

Respectfully submitted,



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